



EJERCICIOS DE TRIGONOMETRÍA:

$$a) 1 + \operatorname{sen} \alpha \cdot \operatorname{tg} \alpha = \frac{\operatorname{sen} \alpha + \operatorname{cotg} \alpha}{\operatorname{cotg} \alpha}$$

$$b) \operatorname{tg} \alpha + \operatorname{ctg} \alpha = \frac{1}{\operatorname{sen} \alpha \cdot \operatorname{cos} \alpha}$$

$$c) (\operatorname{sen} \alpha + \operatorname{cos} \alpha)^2 + (\operatorname{sen} \alpha - \operatorname{cos} \alpha)^2 = 2$$

$$a) 2 \operatorname{tg} x \left(\frac{1 + \operatorname{cos} x}{2} \right) = \operatorname{sen} x + \operatorname{tg} x$$

$$b) \frac{\operatorname{tg} \alpha + \operatorname{tg} \beta}{\operatorname{cotg} \alpha + \operatorname{cotg} \beta} = \operatorname{tg} \alpha \cdot \operatorname{tg} \beta$$

$$a) \frac{1 - \operatorname{sen} \alpha}{\operatorname{cos} \alpha} = \frac{\operatorname{cos} \alpha}{1 + \operatorname{sen} \alpha}$$

$$b) \frac{\operatorname{sen} \alpha + \operatorname{cotg} \alpha}{\operatorname{tg} \alpha + \operatorname{cosec} \alpha} = \operatorname{cos} \alpha$$

$$c) \operatorname{tg} \alpha + \operatorname{cotg} \alpha = \operatorname{sec} \alpha \cdot \operatorname{cosec} \alpha$$

$$d) \operatorname{cos}^2 x = \operatorname{sen}^2 x \cdot \operatorname{cos}^2 x + \operatorname{cos}^4 x$$